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Title:

Build the Grid from the Consumer to the Power Plant for a Faster, more

Effective, Greener and less costly approach to Electrification

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Abstract

This presentation addresses the economics and technology of bringing electricity to people who live without electricity today.

Utilities traditionally develop the electric grid by building power generation and T&D infrastructure before connecting to the customers. This approach requires large amounts of capital and significant time before it begins delivering the benefits of electricity to consumers. The large capital requirements often prevent any development from taking place.

With today's technology, building the grid from the consumer back to the central power plant is more effective. It delivers the benefits of electricity to the consumer sooner; it requires low amounts of capital to begin delivering those benefits; and, the grid that is developed more effectively meets the needs of today's consumer than girds built in a traditional way. With some additional development, it can also be done at a much lower total cost.

This presentation looks at the traditional approach of building central power plants with T&D infrastructure to deliver electricity. It proposes an alternative solution that builds from the customer to the utility. It then outlines the development that needs to be completed to execute this more efficient and effective approach. Developments addressed include: selecting Mini Grid Voltage; a new approach to LED lighting; and small scale energy storage.